

CLAIMS

1. A solid-state image pickup apparatus, comprising:

a photodetecting section having a plurality of pixels which are two-dimensionally arranged in M rows and N columns (M and N are integers of two or more) and each of which includes a photodiode and a cell switch, and N lines L_N provided in accordance with the respective columns of said pixels such that said associated photodiodes in said pixels that constitute the nth column (n is an arbitrary integer of one or more but N or less) are respectively connected to a line L_n via said cell switch corresponding to said associated photodiode;

an output section which accumulates an electric charge that flows in through the line L_n into a readout circuit R_n and which outputs a voltage according to the amount of the accumulated electric charge from said readout circuit R_n via a switch SW_n , said output section being arranged at a first-row side or an Mth-row side of said photodetecting section and including N readout circuits R_1 to R_N and N switches SW_1 to SW_N ;

a row selecting section which outputs a row selecting signal $S_{A,m}$ for an instruction on switching of said cell switches in said pixels that constitute the mth row (m is an arbitrary integer of one or more but M or less) of said photodetecting section, said row selecting section being arranged at a first-row side or an Mth-row side of said photodetecting section;

a column selecting section that outputs a column selecting signal $S_{B,n}$ for an instruction on switching of said switch SW_n in said output section, said column selecting section being arranged at a first-

row side or an Mth-row side of said photodetecting section; and

a waveform shaping means for shaping, for each of the rows longer in distance from said row selecting section than a predetermined distance out of the M rows of said photodetecting section, a waveform of the row selecting signal $S_{A,m}$ outputted from said row selecting section and which inputs a shaped row selecting signal $S'_{A,m}$ into said cell switches of said pixels that constitute the mth row of said photodetecting section.

2. A solid-state image pickup apparatus according to claim 1, wherein said waveform shaping means shapes, for each of all rows of said photodetecting section, a waveform of the row selecting signal $S_{A,m}$ outputted from said row selecting section, and inputs a shaped row selecting signal $S'_{A,m}$ into said cell switches of said pixels that constitute the mth row of said photodetecting section.

3. A solid-state image pickup apparatus according to claim 1, wherein said waveform shaping means is arranged, for each row of said photodetecting section, at either one end side of the row.

4. A solid-state image pickup apparatus according to claim 1, wherein said waveform shaping means is arranged, for each row of said photodetecting section, at both end sides of the row.

5. A solid-state image pickup apparatus according to claim 1, wherein said waveform shaping means includes a logic circuit that is inputted with the row selecting signal $S_{A,m}$ outputted from said row selecting section and that outputs a logic signal according to a level of the inputted row selecting signal $S_{A,m}$ as a waveform-shaped row selecting signal $S'_{A,m}$.